

Amendment
Serial No. 09/243,269
Page 8

REMARKS

In the Office Action, the Examiner noted that claims 28-52 are pending in the application and that claims 28-52 stand rejected. By this response, claims 28 and 48 are amended to correct for formality errors pointed out by the Examiner and not in response to prior art. All other claims continue unamended.

In view of the following discussion, the Applicant submits that none of the claims now pending in the application is anticipated under the provisions of 35 U.S.C. §102 or obvious under the provisions of 35 U.S.C. §103. Furthermore, the Applicant also submits that these claims now satisfy the requirements of 35 U.S.C. § 112. Thus, the Applicant believes that all of the claims are now in allowable form.

Rejections

A. 35 U.S.C. § 112

The Examiner has rejected claims 28-52 under the provisions of the second paragraph of 35 U.S.C. § 112 as being Indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, the Examiner notes that claims 28 and 48 recite the limitation of "the network link" in line 11 and line 8, respectively, and that there is insufficient antecedent basis for this limitation.

In response, the Applicant has amended claims 28 and 48 to provide antecedent basis for "the network link" recited in the claims.

Having made these changes, the Applicant submits that claims 28-52, as they now stand, are definite and hence fully satisfy the requirements of 35 U.S.C. § 112.

B. 35 U.S.C. § 102

Amendment
Serial No. 09/243,269
Page 9

The Examiner rejected claims 28-29, 33-44 and 48-50 under 35 U.S.C. 102(b) as being anticipated by Liang et al. (United States patent 5,732,086 issued November 7, 1995, hereinafter "Liang"). The rejection is respectfully traversed.

The Examiner alleges that Liang discloses a method and network comprising at least two network devices; and at least one controller including detecting network modification; causing one network device to transmit a first port ID message to a successive network device including one network device's perception of the link; receiving a second port ID message from the successive network device including the successive network device's perception of the link; compare the perceptions; and update if perception does not agree. The Applicant respectfully disagrees.

The teachings of Liang fail to teach, disclose or suggest at least the Applicant's claim 28, which specifically recites:

"A telecommunications network, comprising:
at least two network devices, each of said network devices comprising at least one network port;
at least one communications path interconnecting the network ports of each of said at least two network devices, each combination of communications path and interconnected network ports forming a network link; and
at least one controller in communication with said at least two network devices, said at least one controller configured to perform the steps of:
detecting a network modification within said telecommunications network;
causing at least one of said network devices to transmit a first port identification message to a successive network device in said communications path, said port identification message including information regarding at least said at least one network device's perception of the successive network device's network links;
receiving a second port identification message from said successive network device, said second port identification message including information regarding at least said successive network device's perception of its own network links;

Amendment
Serial No. 09/243,269
Page 10

comparing said at least one network device's perception of the network links with said successive network device's perception of its network links; and

updating, if said at least one network device's perception of the network links does not agree with said successive network device's perception of its network links, said at least one network device's perception of the network links to agree with said successive network device's perception of its network links." (emphasis added)

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1983)) (emphasis added).

There is absolutely no teaching, disclosure or suggestion in Liang for "updating, if said at least one network device's perception of the network links does not agree with said successive network device's perception of its network links, said at least one network device's perception of the network links to agree with said successive network device's perception of its network links" as claimed in at least the Applicant's claim 28 and taught throughout the Applicant's specification. In the specification the Applicant specifically discloses"

"Specifically, In an illustrative embodiment, the identification message include the information set forth in the illustrative conceptual diagram of Figure 2. In this illustrative embodiment, the transmitting port includes its own port identity and it's best estimate of the receiving port's identity. This estimate may be based upon previously received messages from the receiving port or other sources, or the field may be left 'blank'. (See Specification, page 8, line 27 through page 9, line 1).

"If it is determined that the remote port's link identification message has been received, the process proceeds to step 320 where the remote and local link identification messages are compared, and, if they are not the same, the process proceeds to step 321, where the local port updates its link identification information." (See Specification, page 10, lines 14-17).

Amendment
Serial No. 09/243,269
Page 11

As such, it is evident from the Applicant's disclosure that the Applicant's Invention is directed at least in part to an automatic telecommunications link Identification system wherein a first network device transmits its own topology information and its perception of a neighboring device's topology to the neighboring device and the neighboring device returns its true topology information to the first device. The perceptions are compared, and if different, the first network device's perception is corrected. In contrast to the Applicant's claimed invention, Liang teaches:

"Connecting—when the node tells other nodes in the network about itself, and conversely, finds out what other nodes are in the network. This is accomplished by each node sending to "All nodes" the topology about itself (i.e. an Update message). This also includes iterative forwarding of each node's "topology row" throughout the network. Redundant traffic is avoided by each interim node forwarding the information only when it differs from the content of its topology table. If the contents match (meaning the message has been seen before), the message is discarded. The topology information for a given node comes only from the node itself.." (See Liang, col. 3, lines 48-60).

"Each of nodes N1-N9 is initially responsible for deriving and updating its particular row of topology table 26. Then that row is communicated to all other nodes. Each node has no responsibility for either deriving or updating any row of topology table 26 other than its own designated row." (See Liang, col. 5, lines 21-25).

Liang is directed to a multi-mode network wherein an originating node transmits an ID message over each interconnect link to construct a topology map for itself, including which links it uses to connect to a neighbor and which links each neighbor uses to connect back. This information is then transmitted to all nodes in the system, so that all nodes in the system are enabled to thereafter identify the topology of the system. (See Liang, Abstract). Thus it is clear to see that the invention of Liang in now way teaches, discloses, or suggests at least "updating, if said at least one network device's perception of the network links does not agree with said successive network device's perception of its network links, said

Amendment
Serial No. 09/243,269
Page 12

at least one network device's perception of the network links to agree with said successive network device's perception of its network links" as claimed in at least the Applicant's claim 28 and taught throughout the Applicant's specification.

Therefore, the Applicant submits that claim 28 is not anticipated by the teachings of Liang and, as such, fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

Likewise, independent claim 48 recites similar relevant features as recited in claim 28. As such, the Applicant submits that independent claim 48 is not anticipated by the teachings of Liang and also fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

Furthermore, dependent claims 29, 33-44 and 49-50, depend either directly or indirectly from independent claims 28 and 48 and recite additional features therefor. As such and for at least the reasons set forth above, the Applicant submits that none of these claims are anticipated by the teachings of Liang. Therefore the Applicant submits that all these dependent claims also fully satisfy the requirements of 35 U.S.C. § 102 and are patentable thereunder.

C. 35 U.S.C. § 103(a)

The Examiner has rejected claims 30-32, 45, 47 and 52 under 35 U.S.C. § 103(a) as being unpatentable over Liang in view of Lu (United States patent 5,815,490). The rejection is respectfully traversed.

Claims 30-32, 45, 47 and 52 depend either directly or indirectly from independent claims 28 and 48 and recite additional features therefor. The Examiner applied Liang as described above for the rejections of independent claims 28 and 48. For at least the reasons disclosed above, the teachings of Liang do not teach, suggest, or otherwise render obvious the Applicant's invention, at least with regard to the Applicant's independent claims 28 and 48 for at least "updating, if said at least one network device's perception of the network links does not agree with said successive network device's perception of its network links, said at least one network device's perception of the network links

Amendment
Serial No. 09/243,269
Page 13

to agree with said successive network device's perception of its network links". Therefore, at least because Liang does not teach, suggest, or describe the invention of the Applicant regarding at least claims 28 and 48, the Applicant submits that Liang also do not teach, suggest, or describe the Applicant's claims 30-32, 45, 47 and 52, which depend from independent claims 28 and 48 and as such, do not render the Applicant's claims 30-32, 45, 47 and 52 obvious. In addition, the Examiner correctly concedes that Liang does not disclose that the network is a bi-directional ring wherein the system includes SONET ports, SDH ports and optical paths, and network mapping is used to configure bandwidth.

As such the Examiner cites Lu. It should be noted that the teachings of Lu alone also do not teach, suggest, or describe the invention of the Applicant, at least with regard to claims 28 and 48 for at least "updating, if said at least one network device's perception of the network links does not agree with said successive network device's perception of its network links, said at least one network device's perception of the network links to agree with said successive network device's perception of its network links." The Lu reference teaches a method of managing a telecommunication subnetwork system. In Lu each of the network elements receives and stores an identical ring table. (See Lu, Abstract) It is clear, however, that the teachings of Lu, alone, also do not render obvious the Applicant's invention, at least with regard to claims 28 and 48.

Furthermore, the Applicant submits that there is absolutely no suggestion or motivation in any of the references to combine the teachings of Liang and Lu as suggested by the Examiner. The Applicant further submits that even if a suggestion to combine the references as suggested by the Examiner did exist (which the Applicant submits that no such suggestion exists), the Examiner's attention is directed to the fact that the alleged references, either singly or in any permissible combination, do not teach, suggest, or otherwise render obvious the Applicant's invention, at least with regard to the Applicant's independent claims 28 and 48. The substantial gap between the teachings of the Liang and the invention of the Applicant is not bridged by the teachings of Lu.

Amendment
Serial No. 09/243,269
Page 14

Therefore, the Applicant respectfully submits that claims 30-32, 45, 47 and 52, as they now stand, fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

D. 35 U.S.C. § 103(a)

The Examiner has rejected claim 46 under 35 U.S.C. § 103(a) as being unpatentable over Liang in view of Yamasaki et al. (United States Patent 5,909,175, hereinafter "Yamasaki"). The rejection is respectfully traversed.

Claim 46 depends indirectly from independent claim 28 and recites additional features therefor. The Examiner applied Liang as described above for the rejections of independent claim 28. For at least the reasons disclosed above, the teachings of Liang do not teach, suggest, or otherwise render obvious the Applicant's invention, at least with regard to the Applicant's independent claim 28 for at least "updating, if said at least one network device's perception of the network links does not agree with said successive network device's perception of its network links, said at least one network device's perception of the network links to agree with said successive network device's perception of its network links". Therefore, at least because Liang does not teach, suggest, or describe the invention of the Applicant regarding at least claim 28, the Applicant submits that Liang also do not teach, suggest, or describe the Applicant's claim 46, which depends from independent claim 28, and as such, does not render the Applicant's claim 46 obvious. In addition, the Examiner correctly concedes that Liang does not disclose an alarm processing system including rerouting communication resulting from the alarm.

As such the Examiner cites Yamasaki. It should be noted that the teachings of Yamasaki alone also do not teach, suggest, or describe the invention of the Applicant, at least with regard to claim 28 for at least "updating, if said at least one network device's perception of the network links does not agree with said successive network device's perception of its network links, said at

Amendment
Serial No. 09/243,269
Page 15

least one network device's perception of the network links to agree with said successive network device's perception of its network links." The Yamasaki reference teaches a connection switching circuit is disposed in each node of a ring system in which a first ring and second ring are provided with two communication lines which allow data to flow in a different direction respectively and is connected with a currently used passage and preliminary passage. (See Yamasaki, Abstract) It is clear, however, that the teachings of Yamasaki, alone, also do not render obvious the Applicant's invention, at least with regard to claim 28.

Furthermore, the Applicant submits that there is absolutely no suggestion or motivation in any of the references to combine the teachings of Liang and Yamasaki as suggested by the Examiner. The Applicant further submits that even if a suggestion to combine the references as suggested by the Examiner did exist (which the Applicant submits that no such suggestion exists), the Examiner's attention is directed to the fact that the alleged references, either singly or in any permissible combination, do not teach, suggest, or otherwise render obvious the Applicant's invention, at least with regard to the Applicant's independent claim 28. The substantial gap between the teachings of the Liang and the invention of the Applicant is not bridged by the teachings of Yamasaki.

Therefore, the Applicant respectfully submits that claim 46, as it now stands, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

Conclusion

Thus the Applicant submits that none of the claims, presently in the application, are anticipated under the provisions of 35 U.S.C. § 102 or obvious under the provisions of 35 U.S.C. § 103. Furthermore, the Applicant also submits that all of these claims also fully satisfy the requirements of 35 U.S.C. § 112. Consequently, the Applicant believes that all of these claims are presently in

Amendment
Serial No. 09/243,269
Page 16

condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Jorge Tony Villabon, Esq. at (732) 530-9404 x1131 or Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,



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